

nents or their equivalents. Therefore, the scope of the disclosure is defined not by the detailed description, but by the claims and their equivalents, and all variations within the scope of the claims and their equivalents are to be construed as being included in the disclosure.

What is claimed is:

1. A biosignal processing apparatus comprising:
  - a communication interface configured to receive a biosignal; and
  - a processor configured to set a target interval of the biosignal, calculate a quality metric corresponding to the target interval based on a target component that is a frequency component of the target interval corresponding to a set value and a non-target component that is a frequency component of the target interval not corresponding to the set value, and estimate a quality of the biosignal based on the quality metric.
2. The apparatus of claim 1, wherein the processor is further configured to convert the target interval to a frequency domain signal, and define, as the target component, a frequency component that is an integral multiple of the set value among frequency components of the frequency domain signal.
3. The apparatus of claim 1, wherein the processor is further configured to extract from the target interval a first number of signals corresponding to the target component, and extract from the target interval a second number of signals corresponding to the non-target component; and
  - the second number is defined based on the first number and the set value.
4. The apparatus of claim 3, wherein the processor is further configured to calculate the quality metric using an electric power of the extracted first number of signals and an electric power of the extracted second number of signals.
5. The apparatus of claim 1, wherein the processor is further configured to change either one or both of the target interval and the set value after the calculating of the quality metric, calculate another quality metric different from the quality metric based on the changed either one or both of the target interval and the set value, and determine a first maximum quality metric among the quality metric and the other quality metric.
6. The apparatus of claim 5, wherein the processor is further configured to determine a second maximum quality metric of another biosignal different from the biosignal, determine a maximum value among the first maximum quality metric and the second maximum quality metric, and determine a target interval corresponding to the maximum value to be a target biosignal to be monitored.
7. The apparatus of claim 5, wherein the processor is further configured to determine whether the first maximum quality metric is greater than or equal to a threshold value, and determine a target interval corresponding to the first maximum quality metric to be a target biosignal to be monitored in response to a result of the determining being that the first maximum quality metric is greater than or equal to the threshold value.
8. The apparatus of claim 1, wherein the processor is further configured to change the target interval by a first step size at least once to obtain at least one first changed target interval, calculate a quality metric corresponding to each of the at least one first changed target interval, select a target interval having a maximum quality metric among the target interval and the at least one first changed target interval,

change the selected target interval by a second step size at least once to obtain at least one second changed target interval, calculate a quality metric corresponding to each of the at least one second changed target interval, and determine a first maximum quality metric based on the quality metric corresponding to the selected target interval and each of the at least one second changed target interval.

9. The apparatus of claim 1, wherein the processor is further configured to determine the target interval to be a target biosignal to be monitored, and define a magnitude of a signal corresponding to the non-target component of the target interval to be a preset value.

10. The apparatus of claim 1, wherein the processor is further configured to obtain period information of the target biosignal to be monitored.

11. A biosignal processing apparatus comprising:

- a quality metric definer configured to define a quality metric based on a target component and a non-target component of a target interval of each biosignal of a plurality of biosignals;
- a quality estimator configured to estimate respective qualities of the biosignals based on the quality metric; and
- a determiner configured to determine a target biosignal to be monitored among the biosignals based on the qualities of the biosignals;

wherein the target component is a frequency component of the target interval corresponding to a set value, and the non-target component is a frequency component of the target interval not corresponding to the set value.

12. The apparatus of claim 11, wherein the quality estimator is further configured to obtain a representative quality metric of each biosignal; and

the representative quality metric is a maximum value of quality metrics of each biosignal that are obtained based on a change in either one or both of the target interval and the set value.

13. The apparatus of claim 12, wherein the determiner is further configured to determine a target interval corresponding to a maximum value among the representative quality metrics to be the target biosignal to be monitored.

14. The apparatus of claim 11, wherein the quality estimator is further configured to obtain quality metrics of each biosignal by changing at least either one or both of the target interval and the set value; and

the determiner is further configured to determine whether a representative quality metric of the quality metrics is greater than or equal to a threshold value, and determine a target interval corresponding to the representative quality metric to be the target biosignal to be monitored in response to a result of the determining being that the representative quality metric of the quality metrics is greater than or equal to the threshold value.

15. The apparatus of claim 11, wherein the quality estimator is further configured to change the target interval by a first step size at least once to obtain at least one first changed target interval, calculate a quality metric corresponding to each of the at least one first changed target interval, select a target interval having a maximum quality metric among the target interval and the at least one first changed target interval, change the selected target interval by a second step size at least once to obtain at least one second changed target interval, calculate a quality metric